



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

PALEOGEOGRAPHIC MAPS OF NORTH AMERICA¹

BAILEY WILLIS
U. S. Geological Survey

14. MIOCENE NORTH AMERICA

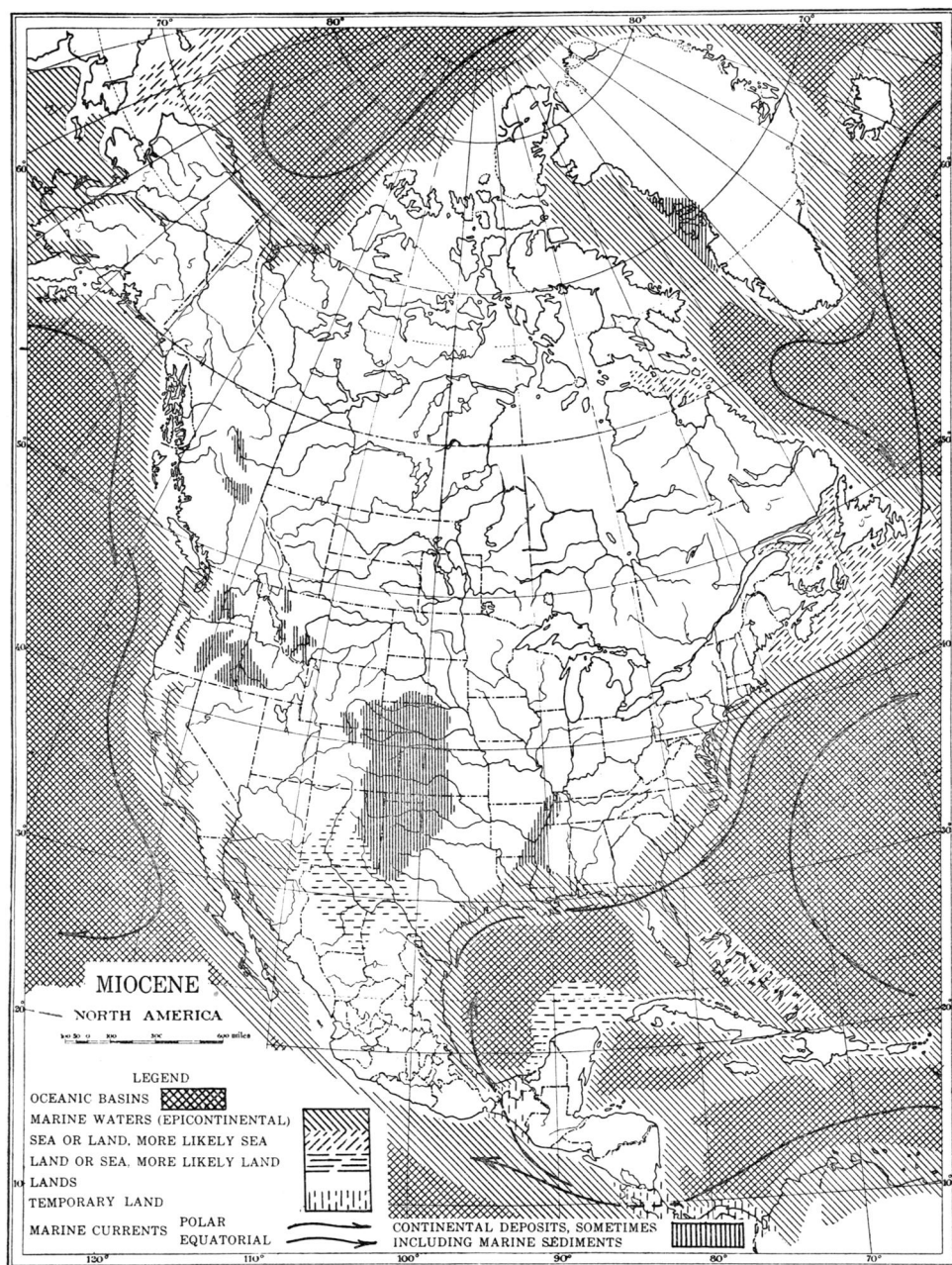
In outline, North America during the Miocene resembled the continent during the Eocene. The surface was, however, less mountainous. The sites of the Sierra Nevada and of the Coast Range of British Columbia were plains or low hilly lands. The Rocky Mountains of the United States were comparatively low. In British Columbia, and thence southward through Washington, Oregon, and Nevada occurred outflows of lava, which covered many thousand square miles, but which in general were not from volcanoes. Though probably subordinate in volume of lava erupted, volcanoes were numerous and they gave off quantities of volcanic ash, which formed deposits in lakes, particularly in western Montana and British Columbia.

The elevation of the Rocky Mountains of western Montana and British Columbia by overthrust, and subsequently the development of longitudinal valleys and separate ranges by vertical displacements, probably began in the Miocene period and may have culminated during Pliocene or early Quaternary time.

In the West Indian region the close of the Oligocene period was marked by a notable disturbance, which raised a folded mountain chain from Puerto Rico to Cuba and probably continuously to Yucatan. It may also have closed the Isthmus of Tehuantepec and possibly have temporarily connected Honduras with South America. Another possible line of connection is around the eastern end of the Caribbean through the Windward Islands. If, however, such a land link united North and South America it was but temporary.

The effect of the Cuban elevation, or of some other geographic

¹ Published by permission of the Director of the U. S. Geological Survey.



change not yet suggested, was to shut off from the northern Gulf and southern Atlantic coasts the warm currents which had sustained a rich southern fauna and to admit the cool northern waters with their appropriate life. A very pronounced faunal change, without any marked stratigraphic break in the sediments, was the result.